

Claims

1. Use of a CD137 antagonist for the preparation of a medicament for the treatment of CD137-expressing tumors.
2. Use according to claim 1 wherein the CD137 antagonist is selected from the group consisting of a CD137-specific antibody, peptide, organic small molecule, antisense oligonucleotide, siRNA, antisense expression vector or recombinant virus.
3. Use according to claim 1 or 2 wherein the antibody is directed to at least one epitope of the amino acid sequence of human CD137 shown in Fig. 8B.
4. Use according to claim 3 wherein the CD137-specific antibody is clone BBK-2 or clone 4B4-1.
5. Use according to claim 2 wherein the CD137-specific antisense expression vector is RSV-ILA-AS.
6. Use according to claim 1 wherein the CD137 antagonist is selected from the group consisting of a CD137 ligand-specific antibody, peptide, organic small molecule, antisense oligonucleotide, siRNA, antisense expression vector or recombinant virus.
7. Use according to any one of claims 1 to 6 wherein the tumor is a B cell lymphoma, tumor of the vulva, nephroblastoma, cystadenocarcinoma of the ovary, rhabdomyosarcoma, leiomyosarcoma, fibrosarcoma, immunocytoma, non-Hodgkin lymphoma, carcinoma of the portio uteri or basal cell carcinoma.
8. Use according to claim 7 wherein the B cell lymphoma is chronic lymphocytic leukaemia.

9. Method of treating a tumor patient comprising administering an effective amount of a CD137 antagonist.
10. Method according to claim 8 wherein the CD137 antagonist is as defined in
5 any one of claims 2 to 6.
11. Method according to claim 9 or 10 wherein the tumor is a B cell lymphoma, tumor of the vulva, nephroblastoma, cystadenocarcinoma of the ovary, rhabdomyosarcoma, leiomyosarcoma, fibrosarcoma, immunocytoma, non-
10 Hodgkin lymphoma, carcinoma of the portio uteri or basal cell carcinoma.
12. Method according to claim 11 wherein the B cell lymphoma is chronic lymphocytic leukaemia.
- 15 13. Use of CD137 or a functional analogue or derivative thereof for the preparation of a medicament for the treatment of conditions characterised by undesired or overactive immune responses.
- 20 14. Use according to claim 13 wherein the CD137 or functional analogue or derivative is encoded by a nucleic acid comprising a nucleotide sequence having at least 90% homology to the coding sequence shown in Fig. 8A.
- 25 15. Use according to claim 14 wherein the CD 137 has the amino acid sequence shown in Fig. 8B.
16. Use according to any one of claims 13 to 15 wherein the condition is selected from autoimmune diseases, allergies, asthma and organ transplant rejection.
- 30 17. Use of an agonistic anti-CD137 ligand antibody for the preparation of a medicament for the treatment of conditions characterised by undesired or overactive immune responses.
18. Use according to claim 17 wherein the condition is selected from autoimmune diseases, allergies, asthma and organ transplant rejection.

19. Method for treating a patient suffering from a condition characterised by undesired or overactive immune responses comprising administering an effective amount of CD137 or a functional analogue or derivative thereof and/or an agonistic anti-CD137 ligand antibody.
20. Method of claim 19 wherein the CD137 is as defined in claim 14 or 15.
21. Method of claim 19 or 20 wherein the condition is selected from autoimmune diseases, allergies, asthma and organ transplant rejection.